

Abstract

A variable capacity modular combined refrigerating installation, which has several modular refrigerating units. Each modular unit has a refrigerating circle, which includes a refrigerating compressor set (1), an evaporator (4) and a condenser (10). A flow control valve (6) is mounted at the refrigerating medium inlet/outlet port of the evaporator (4); and/or a flow control valve (11) is mounted at the inlet/outlet port of the condenser (10). The refrigerating compressor set (1) comprises an adjustable frequency motor (1A) and a compressor (1B) with magnetic suspend bearings. Each modular unit is also provided with an inlet pressure sensor (26) and/or discharge pressure sensor (27). The installation provided with a refrigerating water temperature sensor (19), a sensor (20) for pressure difference between supply and return at the installation side and a sensor (21) for pressure difference between supply and return at the load side ; and a sensor (22) for pressure difference between supply and return at the installation side. The present invention can decrease the power consumption of the air conditioning system and provide a convenient and improved control.